UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,671	03/18/2004	Timothy G. Offerle	81095823 (36190-67)	2670

28549 7590 07/09/2009

Dickinson Wright PLLC
38525 Woodward Avenue
Suite 2000
Bloomfield Hills, MI 48304

EXAMINER
TO, TUAN C

ART UNIT	PAPER NUMBER
3663	

MAIL DATE	DELIVERY MODE
07/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/708,671	OFFERLE ET AL.	
	Examiner	Art Unit	
	TUAN C. TO	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-14,27,29,30 and 32-36* is/are pending in the application.

4a) Of the above claim(s) *2-14 and 33-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27,29,30, 32, 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/4/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 36 is rejected under 35 U.S.C. 102 (b) as being anticipated by Takagi et al. (US 6,324,458 B1).

Takagi et al. discloses a vehicle comprising a shift lever having a reverse position generating a reverse position signal. For example, in figure 1B and the associated text in column 5, lines 37-47, drive direction F (Forward) or R (rearward) from the running direction sensor 62 may be provided by a shift position switch. Takagi et al. further teaches a control unit, coupled to the shift lever, applying brake-steer in response to the reverse position signal. As set in column 5, line 37-47, the driving direction signal is generated from the direction sensor (62) which may be provided by the shift position switch. Next, in column 10, Takagi et al. illustrate a process for applying brake-steer when the vehicle is driven rearward in order to control turn running behavior of a vehicle.

Takagi et al. further teaches a brake system that is controlled when applying the brake-steer in response to the forward or reverse direction. As set forth in column 5, lines 30-47, the vehicle control means (40) operates the hydraulic circuit means (44) to operate wheel cylinders 46FL, 46FR, 46RL, and 46RR for the front left, front right, rear left and rear right wheels for braking the corresponding wheels.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27, 29, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. (US 6,324,458 B1) and in view of Suzuki et al. (US 4609064).

Regarding claim 27, Takagi et al. discloses a vehicle comprising a shift lever having a reverse position generating a reverse position signal. For example, in figure 1B and the associated text in column 5, lines 37-47, drive direction F (Forward) or R (rearward) from the running direction sensor 62 may be provided by a shift position switch. Takagi et al. further teaches a control unit, coupled to the shift lever, applying brake-steer in response to the reverse position signal. As set in column 5, line 37-47, the driving direction signal is generated from the direction sensor (62) which may be provided by the shift position switch. Next, in column 10, Takagi et al. illustrate a process for applying brake-steer when the vehicle is driven rearward in order to control turn running behavior of a vehicle.

Although Takagi et al. teaches a control system that applies brake-steer in response to the backward or reward driving behavior, Takagi et al. fails to disclose a transfer case having a transfer case mode, and a control changing the transfer case mode based on brake-steer.

Suzuki et al. teaches a part-time type four-wheel drive system has a 2WD-4WD changeover means capable of changing the drive system from a four-wheel drive mode to a two-wheel drive and vice versa. The drive system of Suzuki et al. include a control unit (32) (see figure 2) that automatically changing the drive system from the four-wheel

drive mode to the two-wheel drive mode when a steering angle of the vehicle become equal or larger than a predetermined angle (see abstract and figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drive system as taught by Takagi et al. to include the drive system that automatically changing from four-wheel drive mode to a two-wheel drive mode when a steering angle equal or larger than a predetermined angle as taught in Suzuki et al. in order to improve the stability when the vehicle is traveling rearward along a curve.

As to claim 29, Takagi et al. further teaches a brake system that is controlled when applying the brake-steer in response to the forward or reverse direction. As set forth in column 5, lines 30-47, the vehicle control means (40) operates the hydraulic circuit means (44) to operate wheel cylinders 46FL, 46FR, 46RL, and 46RR for the front left, front right, rear left and rear right wheels for braking the corresponding wheels.

As to claim 30, Takagi et al. further discloses the braking system that is controlled with applying brake-steer in response to the forward or reverse direction in order to reduce turning radius (see column 10, lines 3-46).

As to claim 32, Takagi et al. further teaches a steering wheel angle sensor generating a steering wheel angle signal, and a control is programmed to apply brake-steer in response to the reverse directional signal and the steering wheel angle signal. As shown in figure 1B, the steering wheel angle sensor (54) generating a steering wheel angle signal θ, and the vehicle behavior control (40) is programmed to apply brake-steer in response to the reverse direction signal generated by the drive direction sensor (62)

and said the steering wheel angle signal θ generated by the steering wheel angle sensor (54).

Response to Arguments

The applicant's amendment and remarks filed on 03/17/2009 have been fully considered.

With respect to the current amendment to claim 27, and the added new claim 36, a new ground rejection has been set forth.

In response to the applicant's argument that there is no suggestion to combine Takagi et al. and Suzuki et al, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the drive system as disclosed by Takagi et al. is modified to include the drive system that automatically changes from four-wheel drive mode to a two-wheel drive mode when a steering angle equal or larger than a predetermined angle as taught in Suzuki et al. in order to improve the stability when the vehicle is traveling rearward along a curve.

Conclusions

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan C To/

Primary Examiner of Art Unit 3663/3600

July 2, 2009